

MANUAL CHANGES

RF SECTION 1- 2600 MHz

MANUAL IDENTIFICATION

Model Number: 86603A
Date Printed: June 1980
Part Number: 86603-90023

This supplement contains important information for correcting manual errors and for adapting the manual to instruments containing improvements made after printing the manual.

To use this supplement, first, make all ERRATA corrections and then all appropriate serial number related changes indicated in the tables below.

SERIAL PREFIX OR NUMBER	MAKE MANUAL CHANGES	SERIAL PREFIX OR NUMBER	MAKE MANUAL CHANGES
2119A	1		
2208A	1-2		
2221A	1-3		
2311A	1-4		
2325A	1-5		
2425A	1-6		
2446A	1-7		
2450A-2621A	1-8		
>> 2703A	1-9		


>> NEW ITEM

NOTE:

Manual change supplements are revised as often as necessary to keep manuals as current and accurate as possible. Hewlett-Packard recommends that you periodically request the latest edition of this supplement. Free copies are available from all HP offices. When requesting copies, quote the manual identification information from your supplement or the model number and print date from the title page of the manual.

Printed in U.S.A.

03 MARCH 1987
6 Pages Text
8 Pages Illustrations
3 Foldouts

 **HEWLETT
PACKARD**

ERRATA

Page i, Title Page:

Delete the following information: "Operating Information Supplement Part No. 86603-90024."

Page 1-1, Introduction:

Delete entire paragraph 1-5.

Page 1-3, Table 1-1:

Under MODULATION CHARACTERISTICS, AM 3 dB Bandwidth, in row for <10 MHz Center Frequency with 0 to 90% AM, change Bandwidth to 5 kHz.

Page 1-6, paragraph 1-15:

Add the following note after paragraph 1-15:

NOTE

If this instrument is not shipped from the factory as part of a complete signal generator system (mainframe, modulation section, and RF section), it may be necessary to perform the adjustments in Section V before all performance specifications will be met.

Page 5-2, Table 5-1:

Add the following entries:

A4C6	Eliminate AM peaking at 200 kHz with a 1.0 GHz center frequency.	1 to 5 pF	6
A4R12	Control of loop gain.	178k to 196k	6
A22A4C3 A22A4C4	Output Flatness	None or C3 2.2pF C4 10 pF	7
A16R24	To provide A16R27 Gain Tracking Adj. with full operating range.	75 ohms to 121 ohms	5

Page 6-5, Table 6-3:

Change A3Q10 to 1854-1046 CD8 TRANSISTOR DUAL NPN TO-78 PD=750MW.

Page 6-6, Table 6-3:

Add an asterisk (*) to A4C6 to indicate a factory selected value.

Page 6-7 and 6-8, Table 6-2 (two places):

Change A7A2CR1 to 1906-0098 CD9, DIODE, MATCHED QUAD.

Page 6-11, Table 6-3:

Under A12 change Part Number for A12XA11 to 1251-6052 CD8.

Page 6-12, Table 6-3:

Add an asterisk (*) to A16R24.

Page 6-14, Table 6-3:

Change A21U8 part number and description as follows:
1820-0223 CD0 IC 301A OP AMP TO-99.

>> Page 6-16, Table 6-3:

Under CHASSIS PARTS, change part number for W9 as follows:
86603-60021 CD6.

ERRATA (cont'd)

Page 6-17, Table 6-3:

Add to MISCELLANEOUS PARTS: 86601-20018 CD5 REAR PANEL (OPTION 003 ONLY).

Page 7-11, CHANGE L:

Add the following change:

Page 5-7, Paragraph 5-27:

In step 4, change "+22.0" to "+24.0".

Page 8-27, Service Sheet 6:

Add an asterisk (*) to A4C6 to indicate a factory selected value.

Add an asterisk (*) to A4R12 to indicate a factory selected value.

Page 8-29, Service Sheet 5 (Schematic):

In the middle of the schematic, add an asterisk (*) to A16R24.

Page 8-33, Service Sheet 7:

Reverse the polarity of diodes A22A2CR2 and A22A3CR2.

On the A22A4 assembly, add capacitors C3* and C4*. Add capacitor C3* 2.2pF from the junction of CR2 and R2 to ground. Add capacitor C4* 10pF from the junction of R2 and C2 to ground.

Page 8-39, Service Sheet 10 (Schematic):

Add part numbers to A21U3 and U7 as follows:

A21U3 1820-1197 and A21U7 1820-0175.

Change A21U8 part number to 1820-0223.

Page 8-41, Service Sheet 11 (schematic):

At the top and near the middle of the schematic on P/O A12 Assembly, change XA11 pin Q to pin R.

CHANGE 1

NOTE: Make this change only if bias circuitry oscillations are occurring.

Page 5-2, Table 5-1:

Add the following entries:

A22A2C14, C15	Install to eliminate low-frequency oscillations (1 MHz or lower) in Q1 or Q2 circuits of A2 and/or A3 assemblies. However, field repair of these assemblies is not recommended. See note in Service Sheet 7 and Table 6-1 regarding replacement of defective assemblies.	0.1uF or none	7
A22A3C13, C14			

Page 8-33, Service Sheet 7 (Schematic):

Add 0.1uF capacitors as follows:

A22A2C14* A2Q1 collector to ground.

A22A2C15* A2Q2 collector to ground.

A22A3C13* A3Q1 collector to ground.

A22A3C14* A3Q2 collector to ground.

CHANGE 2

Page 6-7, Table 6-3:

Change A7 Part Number to 86602-60058 CD8.

Under A7 MISCELLANEOUS PARTS, delete 86602-20026 BUSHING.

Delete A7A1, A7A2, and A7A2CR1.

Add A7A1 86602-60057 CD7 QTY 1 4 GHZ MIXER ASSEMBLY.

Add A7A1U1 0955-0171 CD1 QTY 1 MIXER DOUBLE BALANCED.

Page 6-8, Table 6-3:

Change A7 Part Number to 86603-60060 CD3.

Delete A7A1, A7A2, and A7A2CR1.

Under A7 MISCELLANEOUS PARTS, delete 86602-20026 BUSHING.

Add A7A1 86602-60057 CD7 QTY 1 4 GHZ MIXER ASSEMBLY (OPTION 002 ONLY).

Add A7A1U1 0955-0171 CD1 QTY 1 MIXER DOUBLE BALANCED.

Page 6-16, Table 6-3:

Change W2 86603-20037 Description to: (OPTION 002 ONLY).

Change W2 86603-20014 to 86603-20061 CD0 and in Description delete (OPTION 002 ONLY).

Page 8-27, Figure 8-11 (Service Sheet 4):

Delete references to A7A2 and A7A2CR1.

Page 8-27, Figure 8-12 (Service Sheet 4):

Change A7 title to read: A7 MIXER ASSEMBLY 86602-60058; (OPTION 002 ONLY 86603-60060).

Delete A7A2 and A7A2CR1 from the Table of Reference Designations.

Replace A7A1 portion of schematic with partial schematic in this supplement.

CHANGE 3

Page 6-13, Table 6-3:

Change A17 HP Part Number from 86603-60042 to 86603-60059 CD0.

Add A17F1 2110-0460 CD3 QTY 1 FUSE 0.031A BI-PIN.

Under A17F1 add 1251-2313 CD6 QTY 2 CONNECTOR-SGL CONT SKT .04-IN-BSC-SZ RND.

Under A17 MISCELLANEOUS, change HP Part Number 86603-20011, HOUSING PHASE MODULATOR, to 86603-20060 CD9.

Page 8-29, Figure 8-14 (Service Sheet 5):

Replace Figure 8-14 with figure from this supplement.

Page 8-29 Figure 8-15 (Service Sheet 5):

Change A17 PHASE MODULATOR ASSEMBLY Part Number to 86603-60059.

In A17 Schematic, insert Fuse F1 in series with main signal line between J1 and junction of C2 and C3.

CHANGE 4

Page 6-14, Table 6-3:

Change A21U6 part number and description as follows:

1826-0557 CD5 QTY 1 IC 348 OP AMP 14-DIP-P LM348J.

Page 8-39, Service Sheet 10 (Schematic):

Add part number 1826-0557 to A21U6.

CHANGE 5

Page 6-2, Table 6-1:

Change Exchange Assembly Part Number to 86603-60062 and New Assembly Part Number to 86603-60061.

Page 6-14, Table 6-3:

Change A22 Part Number to: 86603-60061 CD4.

Change A22 Restored Assembly Part Number to: 86603-60062 CD5.

Page 6-15, Table 6-3:

Change A22A2 Part Number to: 86602-60063 CD6.

Change A22A3 Part Number to: 86603-60064 CD7.

Page 8-33, Service Sheet 7 (Component Locations):

Replace Figure 8-18 with figure from this supplement.

Page 8-33, Service Sheet 7 (Schematic):

Replace schematics for A22A2 and A22A3 with schematics from this supplement.

Change A22 Assembly Part Number on upper left corner of the schematic to 86603-60061.

CHANGE 6

Page 6-7, Table 6-3:

Change A5 part number to 86602-67001.

Change A6 part number to 86603-67004.

CHANGE 7

Page 6-11, Table 6-3:

Change All part number to 86603-60072 CD7.

Change AllU1 to 1820-3465 CD8 IC FF TTL ALS D-TYPE POS-EDGE-TRIG COM SN74ALS174N.

Delete AllU2.

Change the following reference designators:

AllU3 to AllU2

AllU4 to AllU3

AllU5 to AllU4

AllU6 to AllU5

Add AllU6 1820-3465 CD8 IC FF TTL ALS D-TYPE POS-EDGE-TRIG COM SN74ALS174N.

Page 8-41, Service Sheet 11 (schematic):

Replace Figure 8-30 with the attached, "All Logic Assembly Schematic Diagram (P/O CHANGE 7)."

>> CHANGE 8

Page 6-8, Table 6-3:

Replace the entire A9 Assembly parts listing with the attached "P/O Table 6-3. Replaceable Parts (P/O CHANGE 8)".

Page 6-11, Table 6-3:

Change A13 (86603-60043) part number to 86603-60074 CD9.

Change A13 (86601-60109) part number and description to 86601-60142 CDO RESTORED 86603-60074, REQUIRES EXCHANGE.

Page 8-37, Service Sheet 9:

Replace the A9 Assembly portion of Figure 8-25 with the attached "P/O Figure 8-25. (P/O CHANGE 8)".

Replace Figure 8-24 with the attached A9 Assembly component locations diagram.

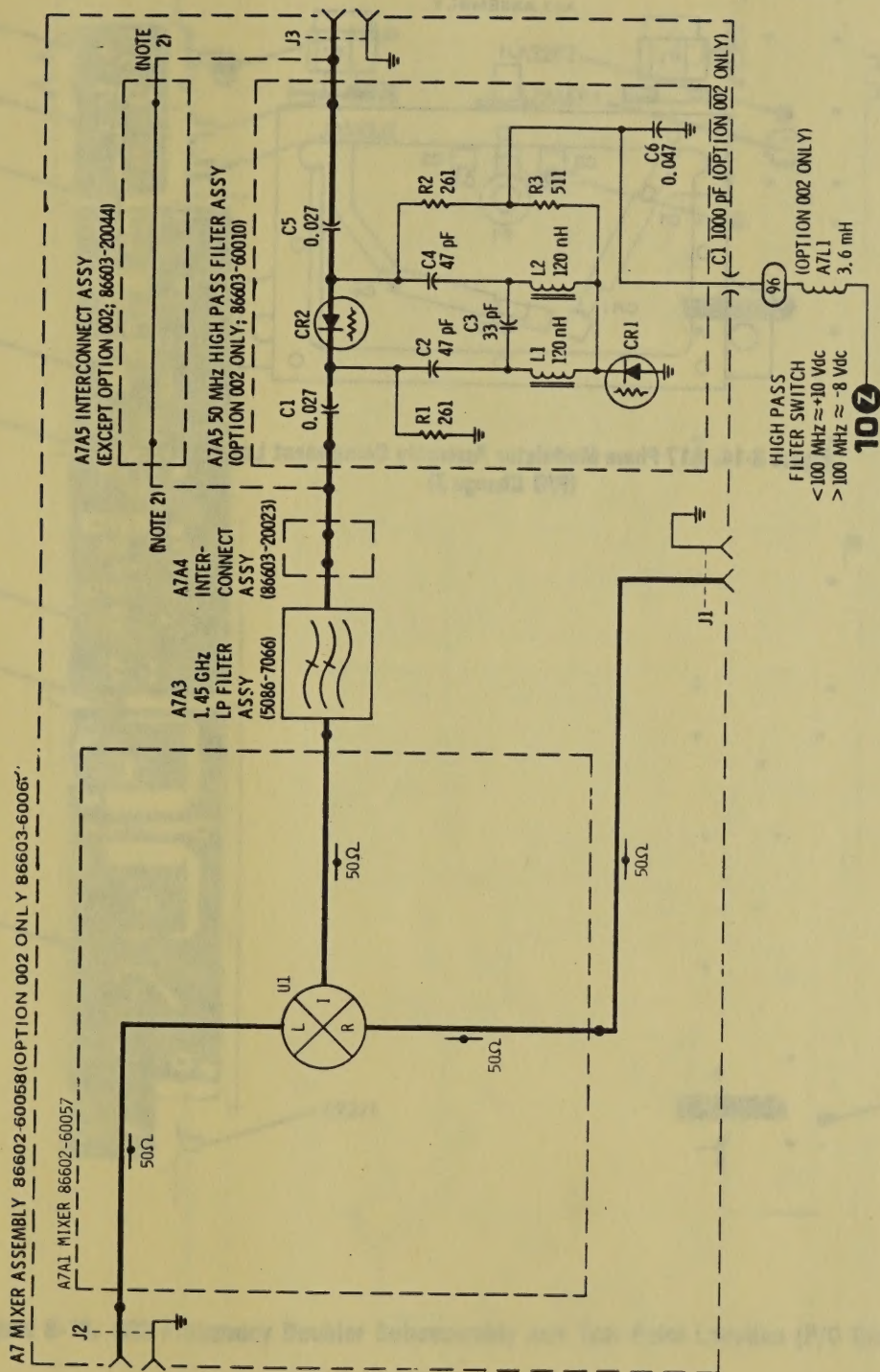
>> CHANGE 9

Page 6-8, Table 6-3:

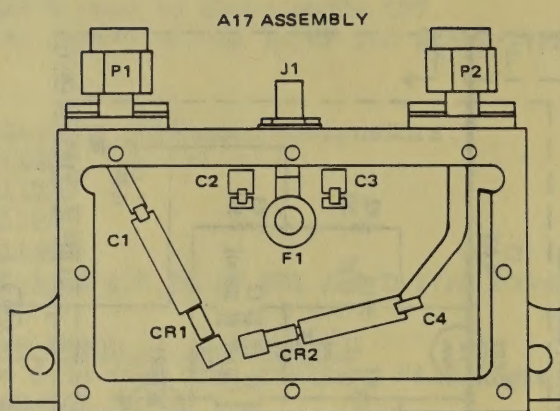
Replace the entire A8 Assembly parts listing with the attached "P/O Table 6-3. Replaceable Parts (P/O CHANGE 8)".

Page 8-37, Service Sheet 9:

Replace the entire Service Sheet 9 with the attached, "Service Sheet 9". (P/O CHANGE 9).



Change 2. P/O Figure 8-12. A7 Mixer Section Schematic Diagram



**Figure 8-14. A17 Phase Modulator Assembly Component Locations
(P/O Change 3)**

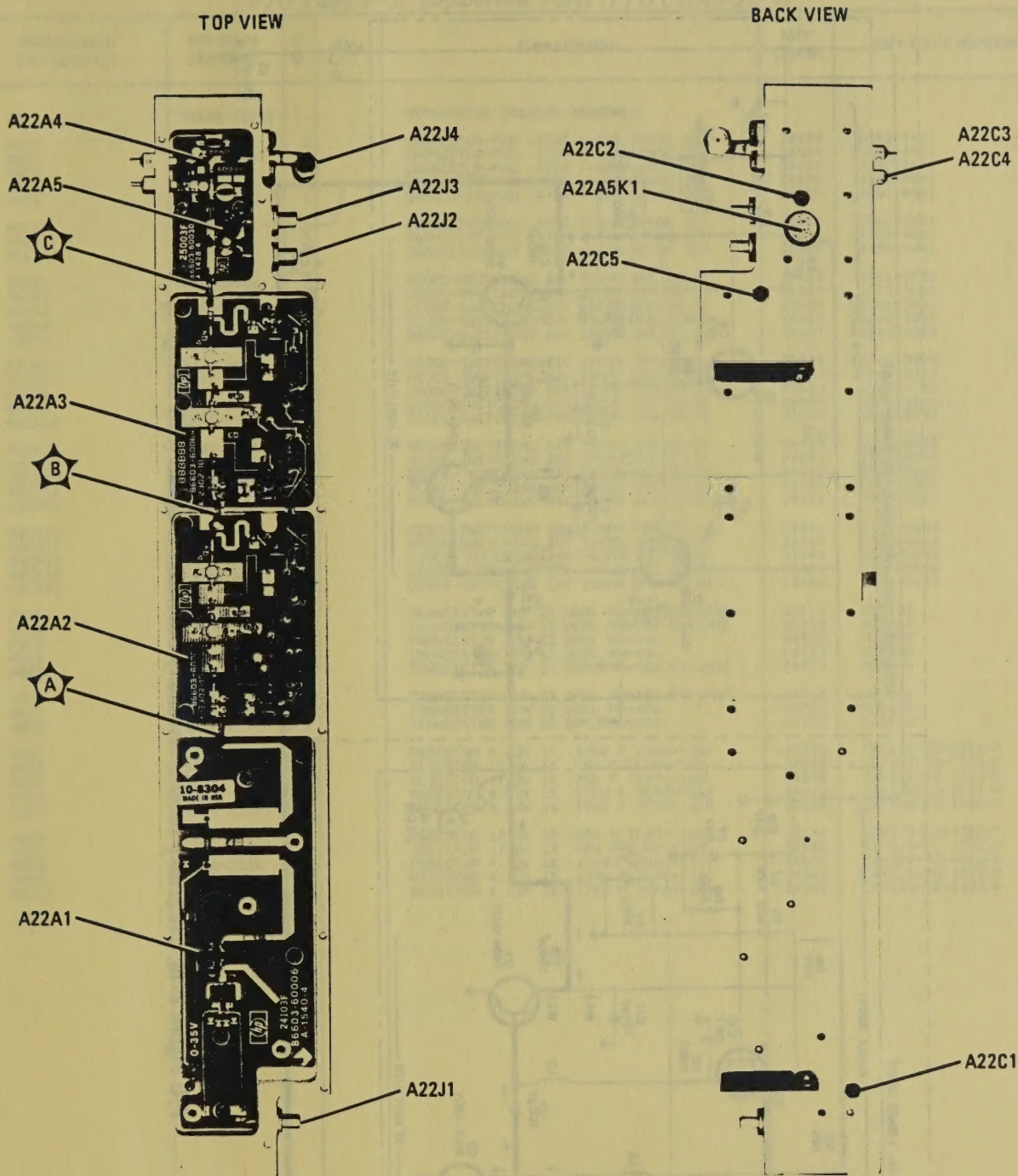
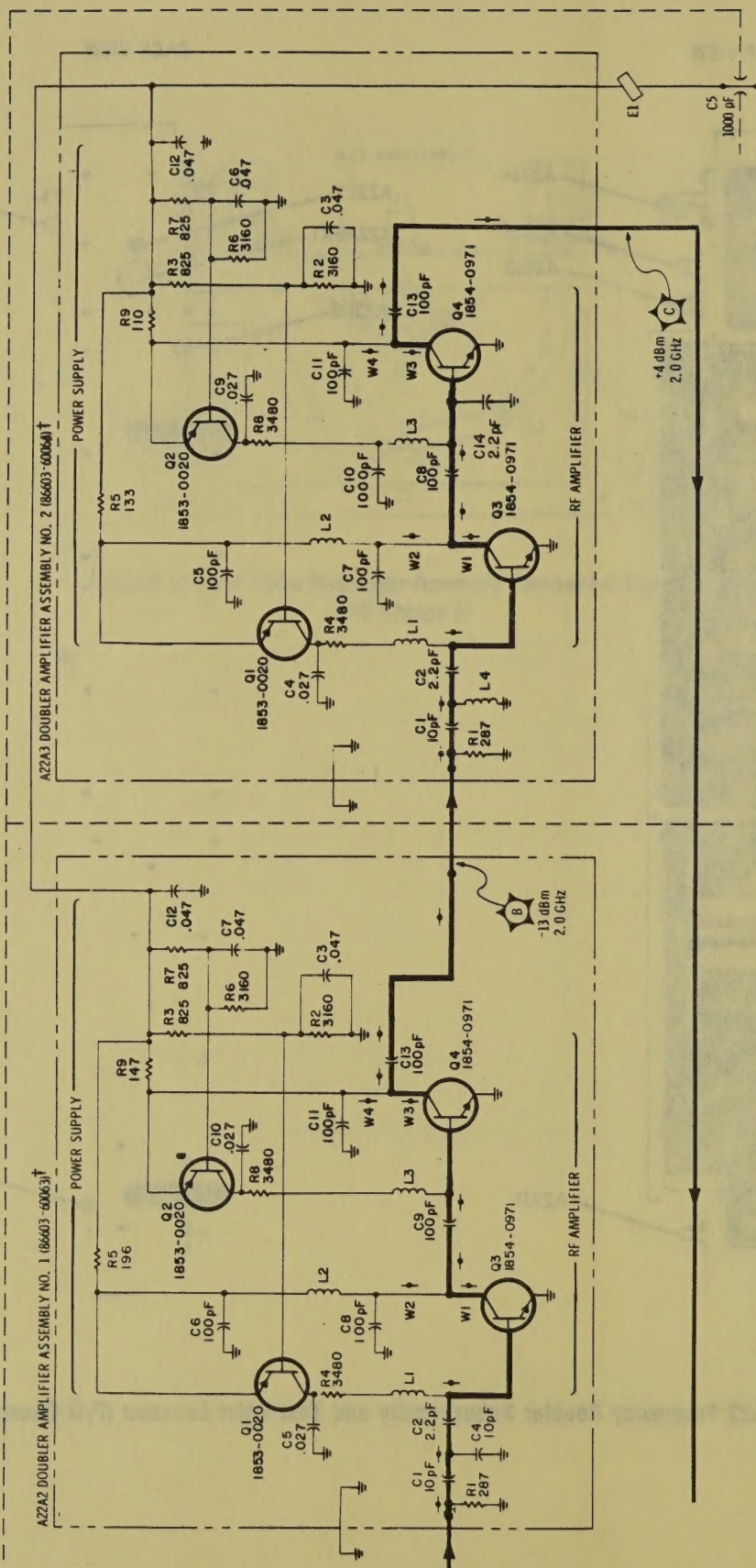


Figure 8-18. A22 Frequency Doubler Subassembly and Test Point Location (P/O Change 5)



P/O Figure 8-19. Frequency Doubler Assembly Schematic Diagram (P/O Change 5)

P/O Table 6-3. Replaceable Parts (P/O CHANGE 8)

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A9	86603-60055	8		ATTENUATOR DRIVERS ASSEMBLY		
A9C1	0160-4441	1		CAPACITOR-FXD .47UF +-10% 50VDC CER	28480	0160-4441
A9C2	0160-4441	1		CAPACITOR-FXD .47UF +-10% 50VDC CER	28480	0160-4441
A9C3	0160-4441	1		CAPACITOR-FXD .47UF +-10% 50VDC CER	28480	0160-4441
A9C4	0160-4441	1		CAPACITOR-FXD .47UF +-10% 50VDC CER	28480	0160-4441
A9C5	0160-4441	1		CAPACITOR-FXD .47UF +-10% 50VDC CER	28480	0160-4441
A9C6	0160-4441	1		CAPACITOR-FXD .47UF +-10% 50VDC CER	28480	0160-4441
A9C7	0160-4441	1		CAPACITOR-FXD .47UF +-10% 50VDC CER	28480	0160-4441
A9C8	0160-4441	1		CAPACITOR-FXD .47UF +-10% 50VDC CER	28480	0160-4441
A9CR1	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR2	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR3	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR4	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR5	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR6	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR7	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR8	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR9	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR10	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR11	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR12	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR13	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR14	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR15	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR16	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR17	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR18	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR19	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9CR20	1901-0050	3		DIODE-SWITCHING 80V 200MA 2NS DO-35	28480	1901-0050
A9Q1	1853-0347	8		TRANSISTOR PNP SI DARL PD=40W FT=1MHZ	04713	MJE700
A9Q2	1853-0347	8		TRANSISTOR PNP SI DARL PD=40W FT=1MHZ	04713	MJE700
A9Q3	1854-0633	7		TRANSISTOR NPN SI DARL PD=40W	04713	MJE800
A9Q4	1854-0633	7		TRANSISTOR NPN SI DARL PD=40W	04713	MJE800
A9Q5	1853-0347	8		TRANSISTOR PNP SI DARL PD=40W FT=1MHZ	04713	MJE700
A9Q6	1853-0347	8		TRANSISTOR PNP SI DARL PD=40W FT=1MHZ	04713	MJE700
A9Q7	1854-0633	7		TRANSISTOR NPN SI DARL PD=40W	04713	MJE800
A9Q8	1854-0633	7		TRANSISTOR NPN SI DARL PD=40W	04713	MJE800
A9R1	0698-3154	0		RESISTOR 4.22K 1% .125W F TC=0+-100	24546	C4-1/8-TO-4221-F
A9R2	0698-7266	3		RESISTOR 17.8K 1% .05W F TC=0+-100	24546	C3-1/8-TO-1782-F
A9R3	0698-7266	3		RESISTOR 17.8K 1% .05W F TC=0+-100	24546	C3-1/8-TO-1782-F
A9R4	0698-3154	0		RESISTOR 4.22K 1% .125W F TC=0+-100	24546	C4-1/8-TO-4221-F
A9R5	0698-3154	0		RESISTOR 4.22K 1% .125W F TC=0+-100	24546	C4-1/8-TO-4221-F
A9R6	0698-7266	3		RESISTOR 17.8K 1% .05W F TC=0+-100	24546	C3-1/8-TO-1782-F
A9R7	0698-7266	3		RESISTOR 17.8K 1% .05W F TC=0+-100	24546	C3-1/8-TO-1782-F
A9R8	0698-3154	0		RESISTOR 4.22K 1% .125W F TC=0+-100	24546	C4-1/8-TO-4221-F
A9R9	0698-3154	0		RESISTOR 4.22K 1% .125W F TC=0+-100	24546	C4-1/8-TO-4221-F
A9R10	0698-3154	0		RESISTOR 4.22K 1% .125W F TC=0+-100	24546	C4-1/8-TO-4221-F

See introduction to this section for ordering information.

* Indicates factory selected value

P/O Table 6-3. Replaceable Parts (P/O CHANGE 8)

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A9R11	0698-3154	0		RESISTOR 4.22K 1% .125W F TC=0+-100	24546	C4-1/8-TO-4221-F
A9R12	0698-7266	3		RESISTOR 17.8K 1% .05W F TC=0+-100	24546	C3-1/8-TO-1782-F
A9R13	0698-7266	3		RESISTOR 17.8K 1% .05W F TC=0+-100	24546	C3-1/8-TO-1782-F
A9R14	0698-3154	0		RESISTOR 4.22K 1% .125W F TC=0+-100	24546	C4-1/8-TO-4221-F
A9R15	0698-3154	0		RESISTOR 4.22K 1% .125W F TC=0+-100	24546	C4-1/8-TO-4221-F
A9R16	0698-3154	0		RESISTOR 4.22K 1% .125W F TC=0+-100	24546	C4-1/8-TO-4221-F
A9R17	0698-7282	3		RESISTOR 82.5K 1% .05W F TC=0+-100	24546	C3-1/8-TO-8252-F
A9R18	0698-7282	3		RESISTOR 82.5K 1% .05W F TC=0+-100	24546	C3-1/8-TO-8252-F
A9R19	0698-7280	1		RESISTOR 68.1K 1% .05W F TC=0+-100	24546	C3-1/8-TO-6812-F
A9R20	0698-7267	4		RESISTOR 19.6K A% .05W F TC=0+-100	24546	C3-1/8-TO-1962-F
A9R21	0698-7267	4		RESISTOR 19.6K A% .05W F TC=0+-100	24546	C3-1/8-TO-1962-F
A9R22	0698-7280	1		RESISTOR 68.1K 1% .05W F TC=0+-100	24546	C3-1/8-TO-6812-F
A9R23	0698-7282	3		RESISTOR 82.5K 1% .05W F TC=0+-100	24546	C3-1/8-TO-8252-F
A9R24	0698-7282	3		RESISTOR 82.5K 1% .05W F TC=0+-100	24546	C3-1/8-TO-8252-F
A9R25	0698-7280	1		RESISTOR 68.1K 1% .05W F TC=0+-100	24546	C3-1/8-TO-6812-F
A9R26	0698-7267	4		RESISTOR 19.6K A% .05W F TC=0+-100	24546	C3-1/8-TO-1962-F
A9R27	0698-7267	4		RESISTOR 19.6K A% .05W F TC=0+-100	24546	C3-1/8-TO-1962-F
A9R28	0698-7280	1		RESISTOR 68.1K 1% .05W F TC=0+-100	24546	C3-1/8-TO-6812-F
A9U1	1826-0759	9		IC COMPARATOR GP QUAD 14-DIP-C PKG	04713	LM339J
A9U2	1826-0759	9		IC COMPARATOR GP QUAD 14-DIP-C PKG	04713	LM339J

See introduction to this section for ordering information.

* Indicates factory selected value

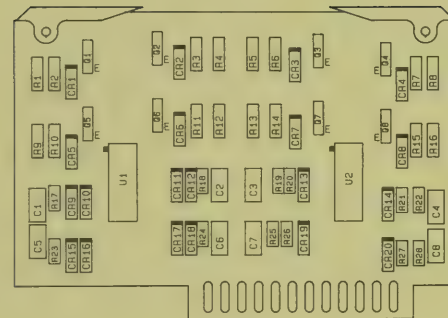
P/O Table 6-3. Replaceable Parts (P/O CHANGE 9)

Reference Designation	HP Part Number	C D	Qty	Description	Mfr Code	Mfr Part Number
A8	86603-60078	9		ATTENUATOR DRIVERS ASSEMBLY		
A8C1	0160-4835	7		CAPACITOR-FXD .1UF +-10% 50VDC CER	28480	0160-4835
A8C2	0160-4835	7		CAPACITOR-FXD .1UF +-10% 50VDC CER	28480	0160-4835
A8C3	0160-4835	7		CAPACITOR-FXD .1UF +-10% 50VDC CER	28480	0160-4835
A8C4	0160-4835	7		CAPACITOR-FXD .1UF +-10% 50VDC CER	28480	0160-4835
A8C5	0160-4835	7		CAPACITOR-FXD .1UF +-10% 50VDC CER	28480	0160-4835
A8C6	0160-4822	2		CAPACITOR-FXD 1000PF +-5% 100VDC CER	28480	0160-4822
A8C7	0160-4822	2		CAPACITOR-FXD 1000PF +-5% 100VDC CER	28480	0160-4822
A8C8	0160-4822	2		CAPACITOR-FXD 1000PF +-5% 100VDC CER	28480	0160-4822
A8C9	0160-4822	2		CAPACITOR-FXD 1000PF +-5% 100VDC CER	28480	0160-4822
A8C10	0160-4835	7		CAPACITOR-FXD .1UF +-10% 50VDC CER	28480	0160-4835
A8C11	0160-4835	7		CAPACITOR-FXD .1UF +-10% 50VDC CER	28480	0160-4835
A8C12	0160-4835	7		CAPACITOR-FXD .1UF +-10% 50VDC CER	28480	0160-4835
A8C13	0160-4835	7		CAPACITOR-FXD .1UF +-10% 50VDC CER	28480	0160-4835
A8C14	0180-0291	3		CAPACITOR-FXD 1UF+-10% 35VDC TA	56289	150D105X9035A2
A8C15	0180-1794	3		CAPACITOR-FXD 22UF+-10% 35VDC TA	56289	150D226X9035R2
A8C16	0180-0291	3		CAPACITOR-FXD 1UF+-10% 20VDC TA	56289	150D105X9035A2
A8C17	0180-1794	3		CAPACITOR-FXD 22UF+-10% 35VDC TA	56289	150D226X9035R2
A8C18	0180-0291	3		CAPACITOR-FXD 1UF+-10% 20VDC TA	56289	150D105X9035A2
A8C19	0180-0197	8		CAPACITOR-FXD 2.2UF+-10% 20VDC TA	56289	150D225X9020A2
A8CR2	1902-0963	9		DIODE-ZNR 16V 5% DO-35 PD=.4W TC=+- .088%	28480	1902-0963
A8CR4	1902-0963	9		DIODE-ZNR 16V 5% DO-35 PD=.4W TC=+- .088%	28480	1902-0963
A8Q1	1854-0633	7		TRANSISTOR NPN SI DARL PF=40W PRD =40W	04713	MJE800
A8Q2	1854-0633	7		TRANSISTOR NPN SI DARL PF=40W PRD =40W	04713	MJE800
A8Q3	1854-0633	7		TRANSISTOR NPN SI DARL PF=40W PRD =40W	04713	MJE700
A8Q4	1854-0633	7		TRANSISTOR NPN SI DARL PF=40W PRD =40W	04713	MJE800
A8Q5	1853-0347	8		TRANSISTOR PNP SI DARL PD=40MW FT=1MHZ	04713	MJE700
A8Q6	1853-0347	8		TRANSISTOR PNP SI DARL PD=40MW FT=1MHZ	04713	MJE700
A8Q7	1853-0347	8		TRANSISTOR PNP SI DARL PD=40MW FT=1MHZ	04713	MJE700
A8Q8	1853-0347	8		TRANSISTOR PNP SI DARL PD=40MW FT=1MHZ	04713	MJE700
A8Q9	1854-0477	7		TRANSISTOR NPN 2N2222A SI TO-18 PF=500MW	04713	2N2222A
A8Q10	1853-0281	9		TRANSISTOR PNP 2N2907A SI TO-18 PD=400MW	04713	2N2907A
A8R1	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-TO-1003-F
A8R2	0757-0279	0		RESISTOR 3.16K 1% .125W F TC=0+-100	24546	C4-1/8-TO-3161-F
A8R3	0757-0279	0		RESISTOR 3.16K 1% .125W F TC=0+-100	24546	C4-1/8-TO-3161-F
A8R4	0757-0279	0		RESISTOR 3.16K 1% .125W F TC=0+-100	24546	C4-1/8-TO-3161-F
A8R5	0757-0279	0		RESISTOR 3.16K 1% .125W F TC=0+-100	24546	C4-1/8-TO-3161-F
A8R6	0699-0069	2		RESISTOR 2.15M 1% .125W F TC=0+-100	28480	0699-0069
A8R7	0699-0069	2		RESISTOR 2.15M 1% .125W F TC=0+-100	28480	0699-0069
A8R8	0699-0069	2		RESISTOR 2.15M 1% .125W F TC=0+-100	28480	0699-0069
A8R9	0699-0069	2		RESISTOR 2.15M 1% .125W F TC=0+-100	28480	0699-0069
A8R10	0698-3440	7		RESISTOR 196 1% .125W F TC=0+-100	24546	C4-1/8-TO-196R-F
A8R11	0698-3440	7		RESISTOR 196 1% .125W F TC=0+-100	24546	C4-1/8-TO-196R-F
A8R12	0698-3440	7		RESISTOR 196 1% .125W F TC=0+-100	24546	C4-1/8-TO-196R-F
A8R13	0698-3440	7		RESISTOR 196 1% .125W F TC=0+-100	24546	C4-1/8-TO-196R-F
A8R14	0757-0280	0		RESISTOR 4.22K 1% .125W F TC=0+-100	24546	C4-1/8-TO-4221-F
A8R15	0757-0280	0		RESISTOR 4.22K 1% .125W F TC=0+-100	24546	C4-1/8-TO-4221-F
A8R16	0757-0465	6		RESISTOR 100K 1% .125W F TC=0+-100	24546	C4-1/8-TO-1003-F
A8U1	1820-1211	8		IC GATE TTL LS EXCL-OR QUAD 2-INP	01295	SN74LS86N
A8U2	1825-1422	5		IC OP AMP WB QUAD 14-DIP-P PKG	02037	MC34084P
A8U3	1820-1423	4		IC MV TTL LS MONOSTBL RETRIG DUAL	01295	SN74LS123N

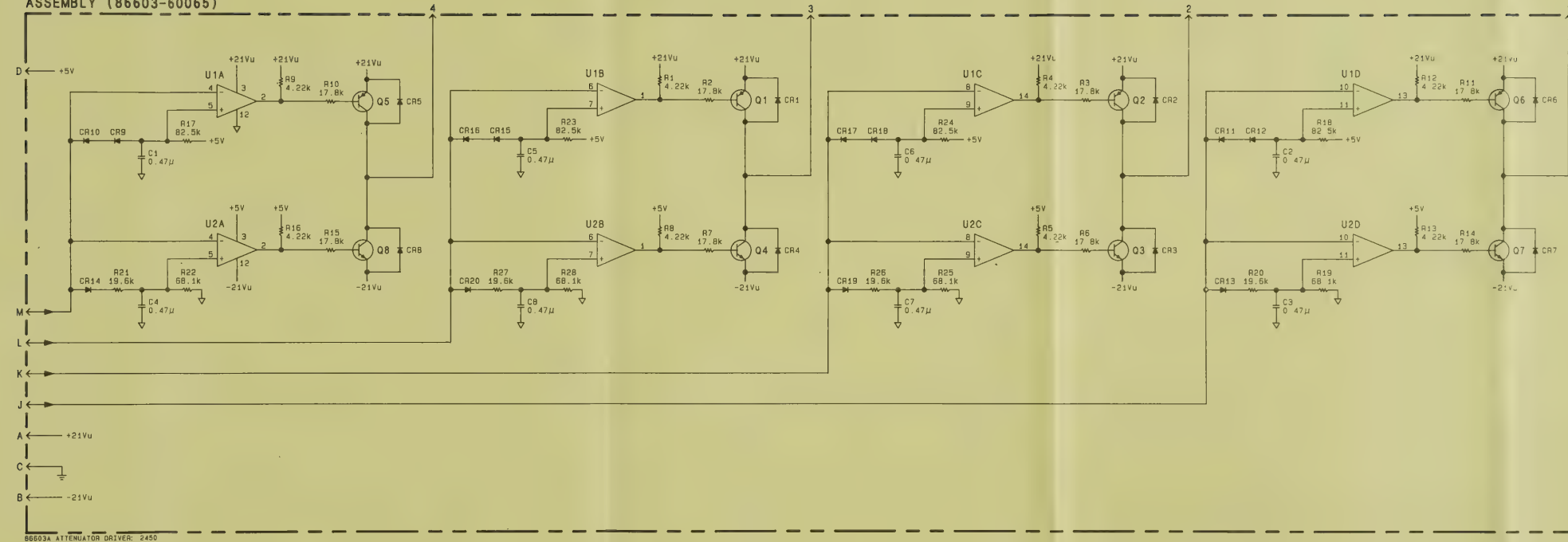
See introduction to this section for ordering information.

* Indicates factory selected value

A9 ASSEMBLY



A9 ATTENUATOR DRIVER
ASSEMBLY (86603-60065)



[illegible]

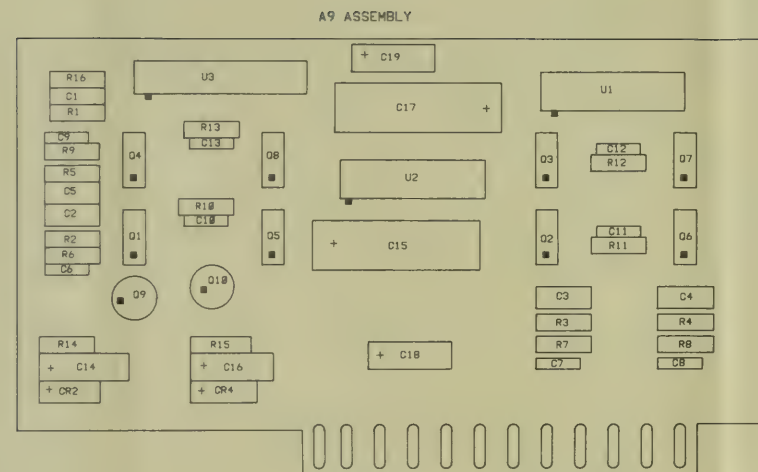


Figure 8-24. A9 Attenuator Driver Assembly Component Locations

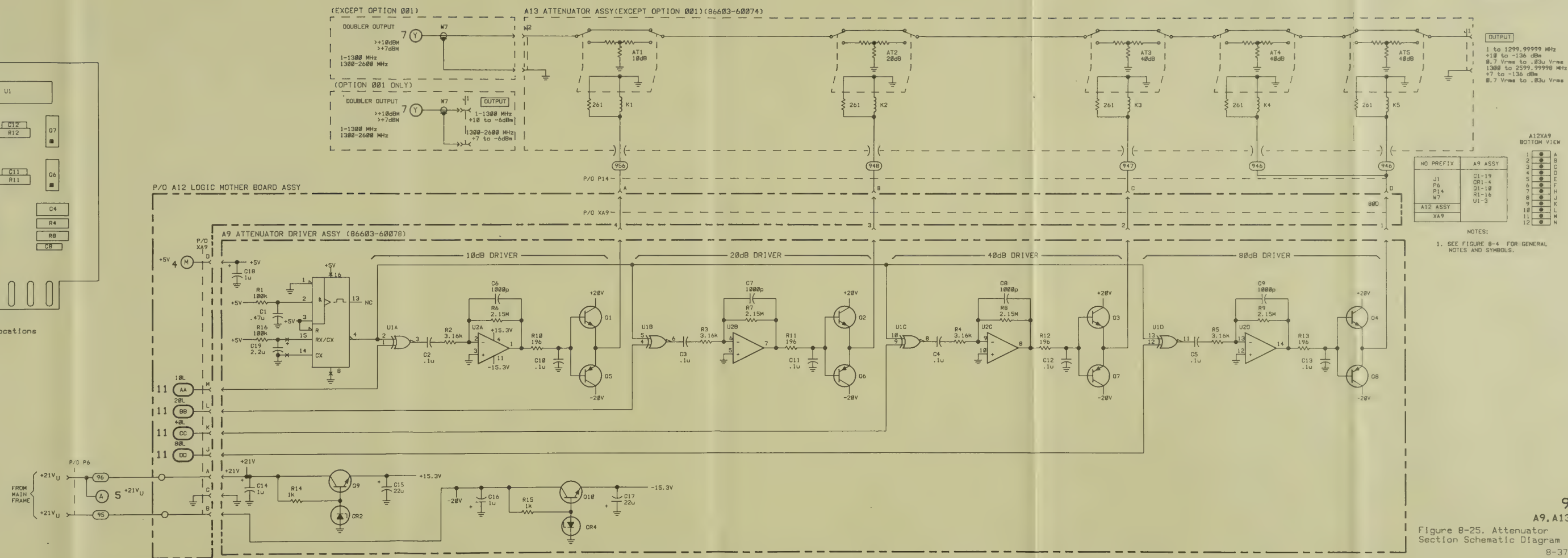
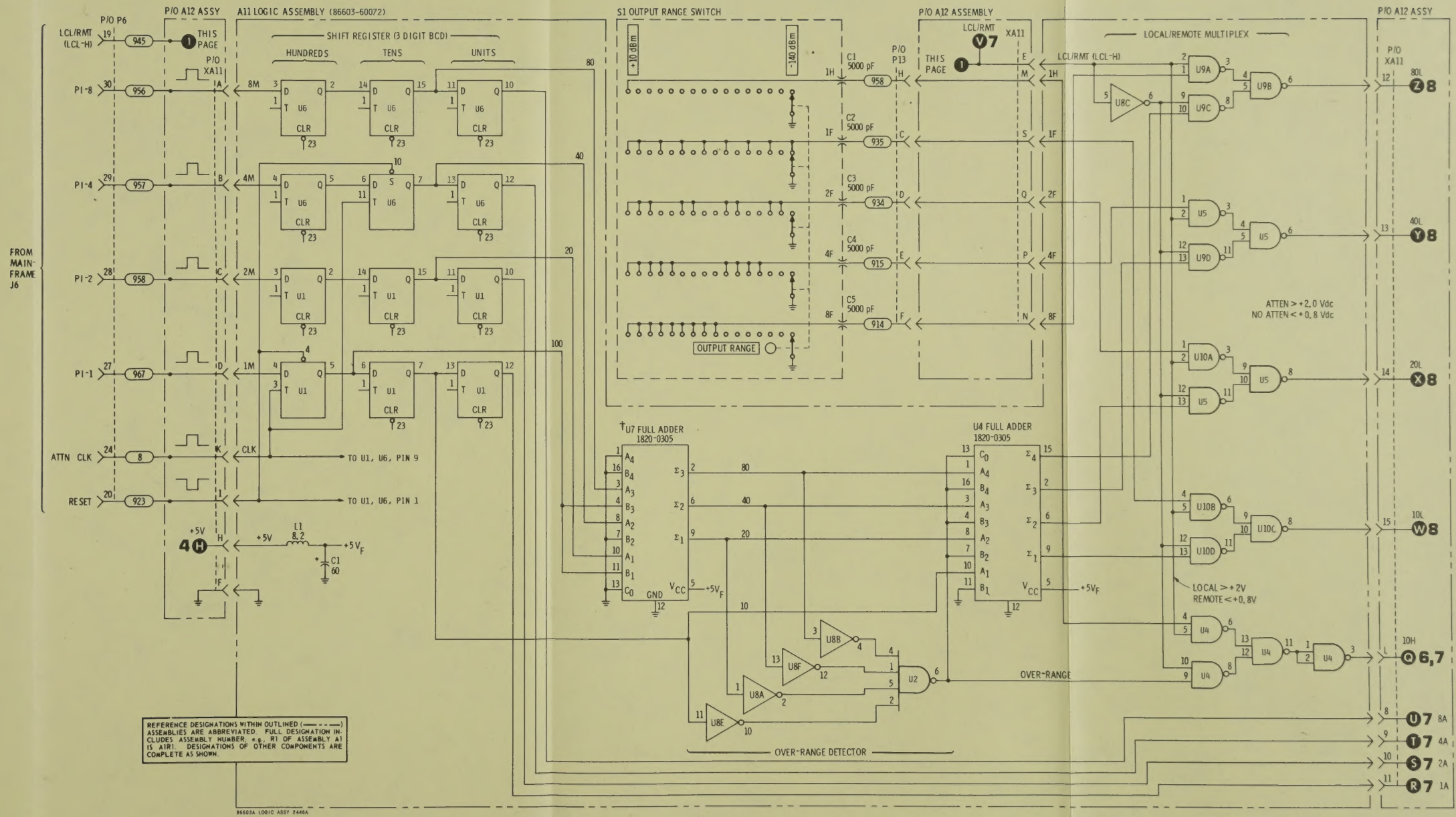
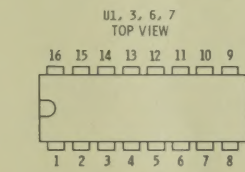
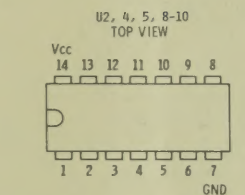


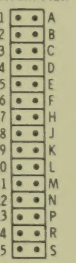
Figure 8-25. Attenuator
Section Schematic Diagram



REFERENCE DESIGNATIONS WITHIN OUTLINED (---) ARE ABBREVIATED. FULL DESIGNATION INCLUDES ASSEMBLY NUMBER, e.g., R1 OF ASSEMBLY A1 IS A1R1. DESIGNATIONS OF OTHER COMPONENTS ARE COMPLETE AS SHOWN.



A12XA11 BOTTOM VIEW



NOTES
1. SEE FIGURE 8-3 FOR GENERAL NOTES AND SYMBOLS
† BACKDATING INFORMATION IN SECTION VII.

REFERENCE DESIGNATIONS

NO PREFIX	A12 ASSY
C1-5	XA11
P6	
S1	
A11 ASSY	
C1	
L1	
U1-10	

